

Jon Richards

To: Brad Jackson/R4/USEPA/US@EPA

09/02/2003 01:12 PM

cc:

Subject: Re: radium removal levels

richards.jon@epa.gov

404/562-8648

----- Forwarded by Jon Richards/R4/USEPA/US on 09/02/2003 01:12 PM -----

Richardv Graham

To: Jon Richards/R4/USEPA/US@EPA

09/02/2003 12:52 PM

cc:

Subject: Re: radium removal levels



Jon: We use a variety of cleanup levels for Ra...if its residential we may use 40CFR192 as TBC or relevant ("ARAR") but we also look at the 20uR/hr above bkgrd and the 0.02-0.03WL Rn in home as well as 100mrem/annum for the general public and the "5" pCi/g. I use the idea of RAGS guidance, looking at pathways that matter for Ra not just assuming that the 5pCi/g is the answer to the problem. Out here we don't have subsistence fishing, hunting, or gardens (Ra primarily doesnt bioaccumulate just bioconcentrates) so we look at the major pathways for exposure and that usually ends up external exposure and Rn.

We use RESRAD scenarios and try to STRONGLY encourage active Rn mitigation in homes either paid for by the owner or the State (through our Rn grants, of course). Most NPL RPMs out here did not go for NPL funds to pay for remediation but I did have two RPMs pay for the fans. So, individualistic site specific answers are common. Our primary concern seemed to be deed restrictions or LTS restrictions which were more of a concern to the property owner than the Ra in soil issue. Once we "threatened" the idea of restricting their deeds we found cooperative agreements that accomplished our risk reduction (yes, it also backfired on us by making the owner more stubborn).

Holler at me and lets see where you are at...did you holler at Larry Jensen and Rick Poeton?



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